User **Guide**

Tobii® Technology

Tobii X60/X120 Monitor Mount

Revision 2

tobii
www.tobii.com

On safety

Read this user guide carefully before assembling and using the X60/X120 Monitor Mount

The Tobii X60/X120 Monitor Mount is intended only for use in office and home environments. If incorrectly assembled, this product can result in injuries.

Ensure the table or wall can support the setup and its weight distribution

Before mounting the arm, ensure that the table or wall you are mounting it on is sturdy enough to support the asymetrical weight distribution caused by the monitor and the eye tracker. If a table, which is not fit for the purpose is used, there is a risk that the table will tip over when the monitor and the eye tracker are attached or adjusted. A tipping table with the additional weight of the monitor and the eye tracker can seriously hurt anyone who is positioned in the direction in which it tips.

Only use monitor arms recommended by Tobii!

As mounting the X60/X120 Monitor Mount and the eye tracker on a monitor arm will subject the arm to weight distributions it is not originally contstructed for, non-Tobii recommended arms might break or not be able to hold the X60/X120 Monitor Mount, eye tracker and monitor in place. However, the arms recommended by Tobii have been tested to ensure that if assembled properly by following the instructions in this manual, they will hold the the combination of the monitor, X60/X120 Monitor Mount and eye tracker.

Do not attach any additional weight to the arm. If using the setup for tests involving children, ensure that the children do not try to play with or hang onto the arm, monitor or monitor mount.

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Tobii X60/X120 Monitor Mount User Guide

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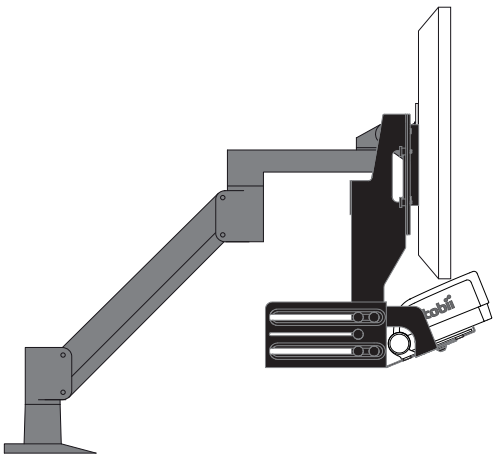
Product description



Intended use

The Tobii X60/X120 Monitor Mount is used in test situations where the stimuli is shown on a monitor and an X60 or an X120 Tobii Eye Tracker will be used. The X60/X120 Monitor Mount provides a fixed geometry for the eye tracker and monitor. This means that once the X60/X120 Monitor Mount and monitor have been configured in relation to each other, the setup as a whole can be adjusted for each participant without impacting the quality of the eye tracking data.

Parts & construction

The Tobii X60/X120 Monitor Mount consists of a metal frame, a plate for attaching the monitor, a digital angle gauge and a set of screws. It is delivered with a special arm, which allows for flexible setups in terms of angles and heights. The arm and X60/X120 Monitor Mount require some assembly. The setup is suitable for monitors with a VESA® mount.

Technical specifications - Arm

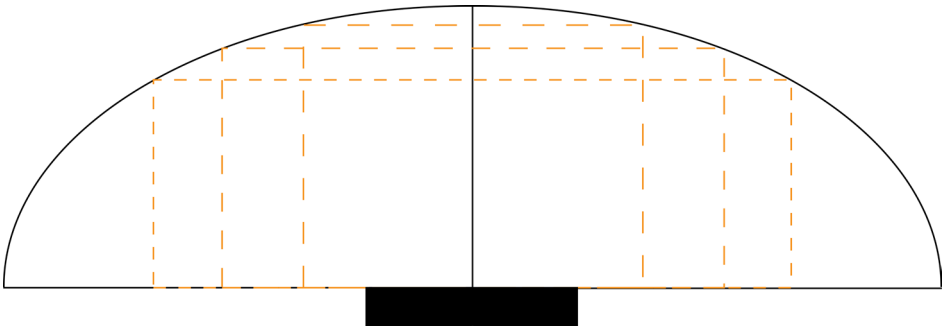
Model	**7500**
Vertical range	45.7 cm (18”), ±22.9 cm (9”) from horizontal
Horizontal range	68.6 cm (27”)
Rotation	360° at two joints
Monitor tilt	200°
Cable management	Cables are concealed in arm
Max Load	19.9 kg (43.9 lb)
Unit weight	6 kg (13.2 lb)

Technical specifications - X60/X120 Monitor Mount

Monitor sizes	43.2 to 59.7 cm diagonally (17” to 23.5”)
Unit weight	4 kg (8.8 lb)
Default eye tracker angle	22°
Supported monitor mounts	VESA® 75 or 100

Recommended monitor size

The X60/X120 Monitor Mount is constructed for monitors between 17” and 23.5”, i.e. with a diagonal between 43.2 and 59.7 cm. The shape of the area in which maximum precision and accuracy can be achieved is illustrated below. When choosing which monitor to use with the X60/X120 Monitor Mount, consider the shape of the monitor as well as the size.



Box content

What is included

When you open the box you will find two boxes; one containing the X60/X120 Monitor Mount and one containing the arm. You will also find this user guide, a digital angle gauge and an additional VESA® adapter plate (square shaped) with 4 screws.

The X60/X120 Monitor Mount box contains:

- The X60/X120 Monitor Mount body
- The X60/X120 Monitor Mount monitor regulator
- 13 screws
- 2 Allen wrenches

The LCD arm box contains:

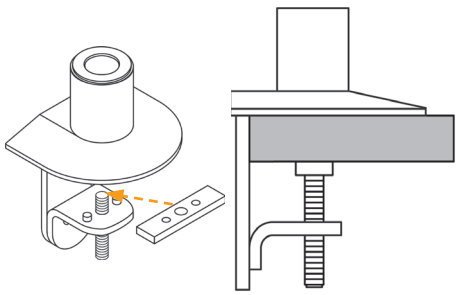
- A desk clamp
- An assembly arm
- A monitor tilter unit
- A cable coverage kit
- A bag of screws and other assembly details
- A VESA® kit (with a star shaped plate)

Please note! Not all the parts included in the boxes will be used in the setup. Some parts are only included to allow for adaptations to different kinds of monitors.

Assembly instructions

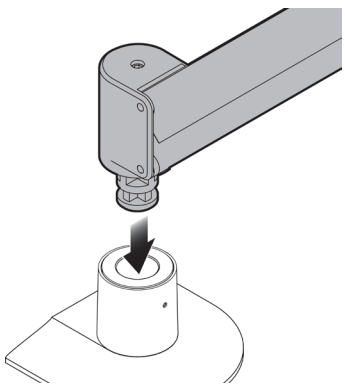
Assembling the arm and the X60/X120 Monitor Mount

Before mounting the arm, ensure that the table or wall you are mounting it on is sturdy enough to support the asymetrical weight distribution caused by the monitor and the eye tracker.
If a table, which is not fit for the purpose is used, there is a risk that the table will tip over when the monitor and the eye tracker are attached or adjusted. A tipping table with the additional weight of the monitor and the eye tracker can seriously hurt anyone who is positioned in the direction in which it tips.



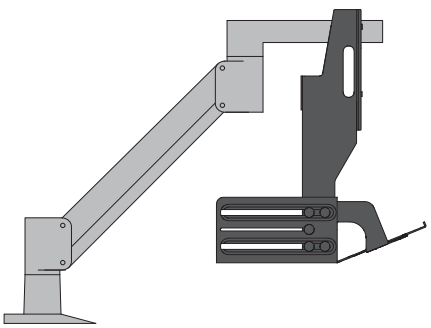
Attach the Desk Clamp to the desk

Place the Desk Clamp around the table edge and fasten the screw as tightly as possible using the hex key provided with the arm. Ensure that the metal plate with the three holes (as seen in the image to the left) is placed between the desk and the screw. If the metal plate is not used, there is a risk that the force applied to the desk clamp when the arm, eye tracker and monitor are assembled will cause the screw to be driven through the desk and whole setup will fall over.



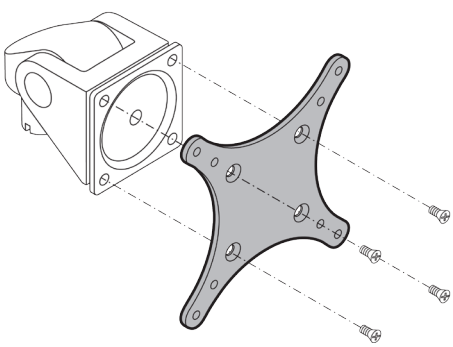
Placing the arm

Put the lower part of the arm in the top hole of the Desk Clamp..



Prepare the mounting of the X60/X120 Monitor Mount

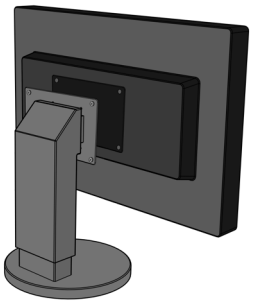
Place the X60/X120 Monitor Mount on the arm.



Attach the Monitor tilt unit to the VESA® plate

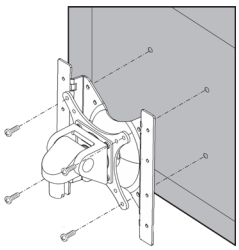
Attach the Monitor tilt unit to one of the two VESA® adaptor plates. Which plate to use depends on the distance between the holes on the monitor. The star shaped plate is suitable for monitors with a greater distance between the screws (100mm) than the small, square shaped plate (75mm).

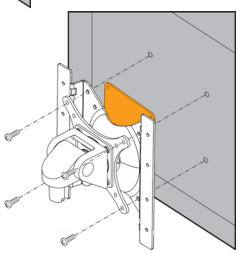
The screws to be used can be found in the bag of mixed screws and Allen wrenches delivered with the arm.



Remove the desk stand from the monitor

Position the monitor on a flat surface. If the monitor already has a desk stand attached to it, remove this desk stand. Instructions on how to remove the desk stand can most often be found in the instruction manual delivered with the monitor.

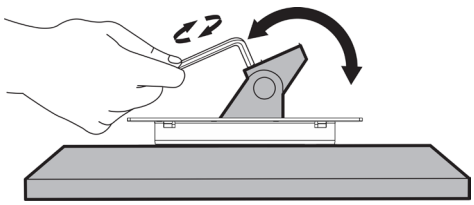




Attach the VESA® plate and X60/X120 Monitor Mount monitor regulator plate to the monitor

Place the X60/X120 Monitor Mount monitor regulator and the VESA® plate so the holes in the plate, the monitor regulator and the monitor align. For some monitors the desk stand anchorage is recessed in the monitor. This can cause the X60/X120 Monitor Mount monitor regulator not to be attached properly to the monitor as it can cause an uneven distance between the monitor and the monitor regulator. In that case, the smaller VESA® plate supplied with the arm can be put between the monitor and the monitor regulator as a spacer to fill up the distance (the smaller VESA® plate is illustrated in orange on the image seen on the left).

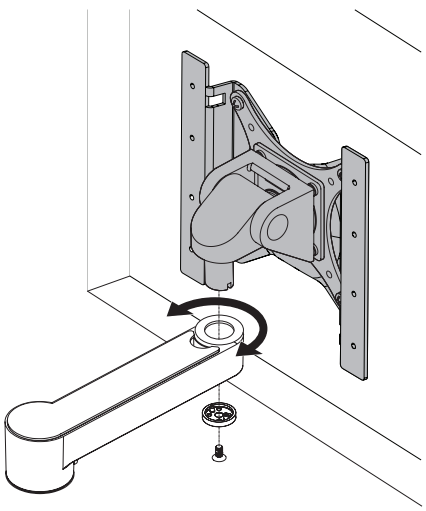
The X60/X120 Monitor Mount is delivered with two different lengths of screws that can be used to fasten the VESA® plate and monitor regulator to the monitor. If the plate mentioned above is used as a spacer, the longer set of screws should be used. Otherwise, use the shorter set of screws. Ensure that the screws are properly tightened.



Set the tilt of the monitor

Use the supplied Allen wrench to loosen the tilt screw under the Monitor tilt unit. Place the unit in the holder on the arm. Adjust the tilt until the desired tilt position is found. Make a mark using a pencil on the tilt unit which shows the desired position. Lift off the monitor and the tilt unit from the arm. Place the tilt unit in the desired position with the aid of the mark made with the pencil. Tighten the tilt screw using the Allen wrench. Place the monitor and the tilt unit on the arm.

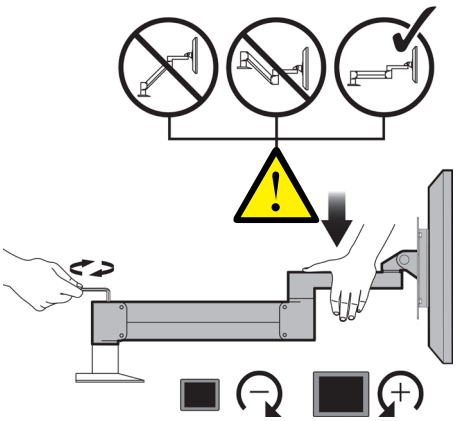
It is very important that the tilt screw is tightly fastened once the tilt has been set. Otherwise, there is a risk that the monitor and eye tracker will tilt by itself at a later time. However, ensure that the correct lenght of screws is used. If the long screws are used when the small plate is not used as a spacer, the monitor might be damaged.



Attach the dog washer

The dog washer is a small, round metal plate with a hole in the centre and is found in the bag containing screws supplied with the arm. The role of the dog washer is to fix the Monitor tilt unit to the arm.

Place the dog washer plate supplied with the arm in the hole under the Monitor tilt unit. Use the black 'Lock patch' screw (a black screw found in the same bag as the dog washer) supplied with the arm to fasten the dog washer to the arm.

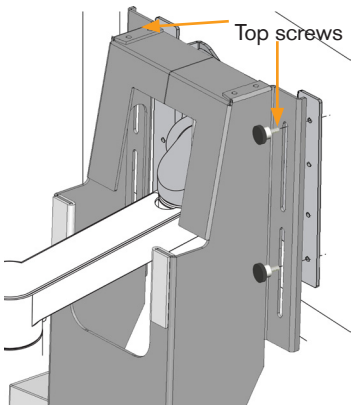


Adjust the height flexibility of the arm

Use the large Allen wrench to loosen the screw at the top of the base on the arm until the arm sinks slowly towards the table.

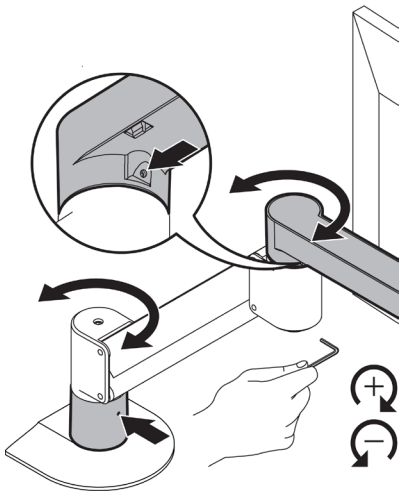
Don't be discouraged if nothing seems to happen after just a few rotations - in order for this to be done, the Allen wrench has to be turned quite a number of rotations!

Once the arm has started sinking towards the table and reached a horizontal position, put your hand on the arm to keep it in that position and start tightening the screw gradually. Adjusting this screw adjusts how sensitive the arm is to the weight of the eye tracker and screen. By holding your hand on the arm, you can feel how sensitive the arm is to the weight put on it. Tightening the screw will decrease the sensitivity and loosening the screw will increase the sensitivity to weight. In other words, if you don't want the monitor mount to move, tighten it as much as possible. If you want to be able to adjust the height, find a setting in between as tight as it goes and as loose as it goes. As the combined weight of the monitor and eye tracker is quite high, this screw will have to be turned counterclockwise a few rotations.



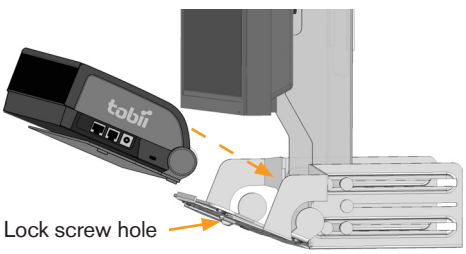
Attach the X60/X120 Monitor Mount to the X60/X120 Monitor Mount monitor regulator

Hold the X60/X120 Monitor Mount in place with one hand while you place and tighten the top screws. Ideally, this should be done by two people where one holds the X60/X120 Monitor Mount in place while the other attaches the screws. Once the two top screws have been put in place, the grip on the X60/X120 Monitor Mount can be released and the rest of the screws attached. Ensure to leave enough space between the monitor and the monitor mount for the eye tracker to fit.



Lock the arm position in place

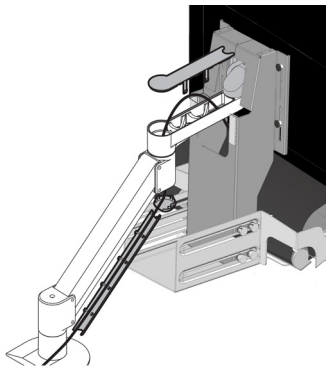
Place the monitor and eye tracker in the desired position. Tighten the screws on the joints of the arm using the smaller of the Allen wrenches supplied with the arm. This will keep the arm stationary during the testing.



Place the eye tracker in the X60/X120 Monitor Mount

Place the eye tracker in the X60/X120 Monitor Mount and lock it in place using the short screw supplied with the X60/X120 Monitor Mount.

The lock screw should go through the hole at the bottom of the monitor mount into the foot of the eye tracker once it is placed in the mount.



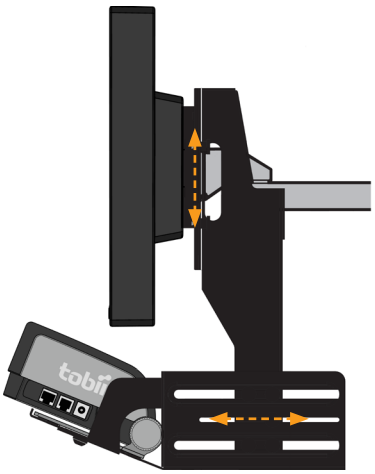
Hide the cables

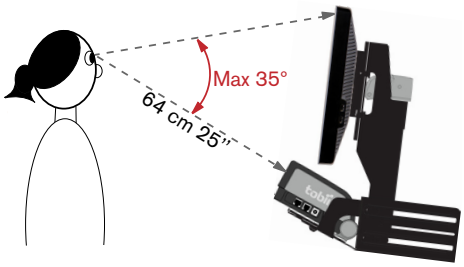
Thread the cables for the eye tracker and monitor thorugh the arm as shown in the image to the left. Place the caps delivered with the arm according to the image to the left to cover the cables.

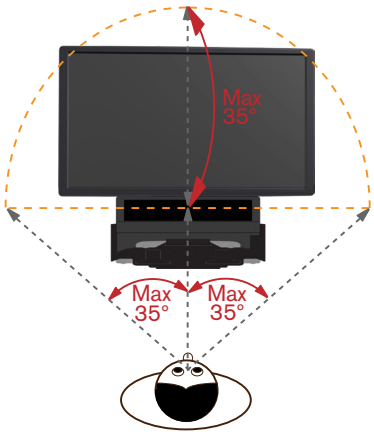
Adjust the X60/X120 Monitor Mount to the monitor size

Calculate the necessary distance between the eye tracker and the monitor and adjust the monitor mount to accomodate for this.

The distance from the person's eyes to the eye tracker should be approximate **64 cm (27")**. The eye tracker should be placed so that the gaze angle will not exceed **35° to any point on the monitor** (see images below).







It is very important to have the **correct distance** to the monitor. Otherwise the eye tracker cannot track the entire display area. If the monitor is placed too close to the eye tracker there is a risk that the gaze data for the corners of the display will not be collected. The correct distance can be calculated by using basic trigonometry and including the gaze angles and the monitor size.

More information about how to calculate the appropriate distance can be found in the X60 or X120 Eye Tracker user manual.

Enter the values into the X Configuration tool

Measure all the values required and enter these into the X Configuration tool. If mounted correctly, the eye tracker's angle should be entered as 22° and the display area as 0° in the X Configuration tool.

More information about how to enter the values can be found in the X60 or X120 Eye Tracker user manual.

Collect the remaining parts

When the assembly is completed there will be some parts remaining. This is because there are parts in the package included to account for adaptations to different monitors. After assembly you should have 4 short, black screws, 4 longer, black screws, 1 thick black screw and 1 silver screw. If you did not need to use the smaller VESA® adaptor plate as a spacer, one VESA® adaptor plate should also remain. These parts should be kept in case you need to attach the monitor mount to a different monitor in the future.

Tobii_UserGuideProductDescription_TobiiX60X120MonitorMountUserGuideProductDescription_02092011_ENGus

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